

<!--StartFragment-->RESULT 1  
 AAY95782  
 ID AAY95782 standard; protein; 626 AA.  
 XX  
 AC AAY95782;  
 XX  
 APPENDIX A  
 DT 15-JUN-2007 (revised)  
 DT 07-NOV-2000 (first entry)  
 XX  
 DE Erysipelothrix rhusiopathiae erysipelas protective antigen.  
 XX  
 KW Erysipelas protective antigen; Epa; SpaA.1; vaccine; infection;  
 KW immuno-protective epitope; BOND\_PC; surface protective antigen SpaA;  
 KW surface protective antigen SpaA [Erysipelothrix rhusiopathiae];  
 KW protective antigen SpaA.1;  
 KW protective antigen SpaA.1 [Erysipelothrix rhusiopathiae]; spaA;  
 KW spaA [Erysipelothrix rhusiopathiae]; G05215; G06810.  
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 OS Erysipelothrix rhusiopathiae.  
 XX  
 FH Key Location/Qualifiers  
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 FT /note= "LPXTGX motif"  
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 FT Peptide 488. .507  
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 FT Peptide 568. .587  
 FT /label= Repeat\_R7  
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 FT /label= Repeat\_R8  
 FT Peptide 608. .626  
 FT /label= Repeat\_R9  
 XX  
 PN WO200047744-A1.  
 XX  
 PD 17-AUG-2000.  
 XX  
 PF 10-FEB-2000; 2000WO-US003789.  
 XX  
 PR 10-FEB-1999; 99US-0119389P.  
 XX  
 PA (UYRQ ) UNIV ROCKEFELLER.  
 XX  
 PI Fischetti VA, Shimoji Y;  
 XX  
 DR WPI; 2000-524541/47.  
 DR N-PSDB; AAA50205.  
 DR PC:NCBI; gi4586910.  
 XX  
 PT Vaccines for protecting turkeys and pigs against Erysipelothrix  
 PT rhusiopathiae infections comprising a polypeptide sequence from the N-  
 PT terminal region of an erysipelas protective antigen.  
 XX  
 PS Claim 2; Fig 2; 61pp; English.

XX  
 CC The present sequence is that of the erysipelas protective antigen (Epa or Spa<sub>1</sub>) of *Erysipelothrix rhusiopathiae* strain Fujisawa, as deduced from CC an isolate Epa gene (see AAA50205). *E. rhusiopathiae* is the causative CC agent of erysipelas in animals and erysipeloid in humans. Epa shows CC structural and sequence similarities to pneumococcal surface protein A CC (PspA) and other choline binding proteins of *Streptococcus pneumoniae*. CC Its C-terminal region consists of a series of conserved 20-amino acid CC repeats (R1-R9). The N-terminal portion of the Epa protein, especially a CC polypeptide comprising residues 12-195 of the present sequence, was CC identified as a vaccine antigen, protecting mice and pigs from a lethal CC challenge with *E. rhusiopathiae*. Vaccines containing immunogenic CC polypeptides of *E. rhusiopathiae*, where the immunogenic polypeptide CC comprises an immuno-protective epitope from the N-terminal region of Epa, CC especially residues 30-447, 30-195 or 30-100 of the present sequence, are CC claimed. A claimed method for protecting an animal, especially a turkey CC or pig, from infection by *E. rhusiopathiae* involves administering the CC vaccine, or an expression vector comprising a nucleic acid encoding the N CC-terminal portion or full-length Epa. A claimed method for detecting the CC presence of protective antibodies to *E. rhusiopathiae* involves detecting CC binding of antibodies in a biological sample with a polypeptide CC comprising an immunoprotective epitope of Epa  
 CC  
 CC Revised record issued on 15-JUN-2007 : Enhanced with precomputed  
 CC information from BOND.  
 XX  
 SQ Sequence 626 AA;

Query Match 100.0%; Score 3265; DB 1; Length 626;  
 Best Local Similarity 100.0%; Pred. No. 2.4e-215;  
 Matches 626; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
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 Db 1 MKKKKHLFPKVSLMSCLLTAMPLQTAFASTDSTDISVPLIGEQVGLLPVLPGTVHQAQEY 60  
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